



Department of Energy

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3900

OCT 16 2001

Mr. Gene Jablonowski, Remedial Project Manager
United States Environmental Protection Agency
Region V, SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0051-02

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Jablonowski and Mr. Schneider:

TASK ORDER IMPLEMENTATION SCHEDULE FOR ABOVE GRADE DECONTAMINATION AND DISMANTLEMENT OF BUILDING 34C UNDER THE MISCELLANEOUS SMALL STRUCTURES DECONTAMINATION AND DISMANTLEMENT PROJECT AND PROPOSED AMENDMENT #3

Enclosed is the task order for above grade Decontamination and Dismantlement (D&D) of Building 34C planned in accordance with the Miscellaneous Small Structures (MSS) Project Implementation Plan. The enclosed submittal is provided as Amendment #3 to the MSS Implementation Plan that provides the salient elements for accelerated remediation of Building 34C from the OU4 Complex and an updated set of performance specifications for work under the MSS Implementation Plan.

The enclosure provides a description of the work and the implementation schedule for this activity. The implementation schedule contains three regulatory milestones:

1. Notice to Proceed – October 31, 2001
2. Start of Field Activities – November 19, 2001
3. Completion of Field Activities – March 31, 2002

OCT 16 2001

Mr. Gene Jablonowski
Mr. Tom Schneider

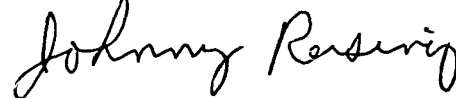
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DOE-0051-02

If you have any questions, please contact John Trygier at (513) 648-3154.

3900

Sincerely,



FEMP:Trygier

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosure: As Stated

cc w/enclosure:

R. Greenberg, EM-31/CLOV
J. McCloskey, EM-31/CLOV
J. Trygier, OH/FEMP
T. Schneider, OEPA-Dayton (three copies of enclosures)
J. Saric, USEPA-V, SRF-5J
F. Bell, ATSDR
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
F. Hodge, Tetra Tech
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosure:

A. Tanner, OH/FEMP
D. Carr, Fluor Fernald, Inc./MS2
T. Hagen, Fluor Fernald, Inc./MS65-2
M. Stevens, Fluor Fernald, Inc./MS44-0
ECDC, Fluor Fernald, Inc./MS52-7

**AMENDMENT #3 - MISCELLANEOUS SMALL STRUCTURES
IMPLEMENTATION PLAN FOR ABOVE GRADE DECONTAMINATION AND DISMANTLEMENT
OF BUILDING 34C (RTS BUILDING)**

OCTOBER 2001

1.0 Project Statement

Building 34C (RTS Building) from the OU4 Complex is undergoing accelerated remediation under the scope of the Miscellaneous Small Structures (MSS) Decontamination and Dismantlement (D&D) project.

Building 34C is identified as a component assigned to the OU4 Complex. The schedule for dismantlement of Building 34C has been accelerated in advance of the OU4 Complex in order to support construction of the slurry waste retrieval system, which requires berm removal. The scope of work for the removal of the RTS Building has identified sub-tasks such as facility shutdown of utilities and removal of vessel contents, in addition to demolition activities. The OU4 Complex D&D project is still several years away from execution. This document serves as amendment number three to the MSS D&D Project Implementation Plan (DOE 1998). The approved remediation requirements detailed in the MSS Implementation Plan, including the attached revised performance specifications, will apply to Building 34C.

This document provides the pertinent information required for amending the MSS D&D Project Implementation Plan and the requisite implementation schedule for the particular task order prepared for the fieldwork. Section 2 of this document contains the component-specific description, characterization and implementation details developed for D&D of the structure. Section 3 provides a summary of debris/waste volume estimates and disposition plans. Section 4 provides the implementation schedule. Section 5 provides several photographs of the Building 34C interior and exterior.

2.0 Component-Specific Remediation

This section presents component-specific background and remediation details for Building 34C. Background information provided in this section was obtained primarily from the Hazard Analysis Report for OU4 (4000-RP-0028 Rev. 0). Information regarding the remediation approach was obtained from the project planning work scope documents/specifications and the OU3 Integrated RD/RA Work Plan (DOE 1997).

2.1 Building 34C – RTS Building

Background – Building 34C (RTS Building) is a single-story building measuring approximately 24 feet x 22 feet x 12 feet high. The building consists of a wood frame construction with metal siding on a poured concrete floor and a metal siding, joist roof. A two-foot wide grade level concrete brick perimeter surrounds the entire building. Building 34C houses the radon

treatment system that was used to remove radon gas from Silos 1 and 2. An airflow path was established from the silos through the RTS and back to the silos. The air from the silos headspace first passes through two calcium sulfate beds (desiccant towers), which remove moisture from the air. The air passes through two or more of eight activated-carbon beds. The carbon beds removed radon from the air by adsorption. Treated air then returns to the silos. The radon remains trapped on the carbon filters where it undergoes natural radioactive decay. All exterior and interior airflow piping is constructed of PVC.

The RTS was last operated in 1992 prior to the installation of the bentonite in Silos 1 and 2. Since then the RTS piping that was connected to the Silos and the fan to move the radon laden air was removed (1994) and the RTS was rendered inoperable.

Since that time the bentonite layer has acted to reduce headspace concentration. However, the efficiency of this process began to drop off apparently due to cracks in the bentonite layer. Therefore, in 1999 the Silos Project team patched or resealed areas of the domes that appeared to be leaking. The radon emissions are continuously monitored with perimeter and headspace monitors. All indications are that the reseal effort was very successful and radon emissions were reduced significantly.

Characterization – No asbestos or other hazardous/mixed wastes are present in Building 34C. Since the system was operated to remove radon from the headspace of the K-65 Silos, the interior of the RTS has contamination from radon progeny. The isotopes present are Pb-210, Bi-210 and Po-210. The amount of activity present within the system is estimated to be 7.4 Curies of each radionuclide mentioned above.

Remediation Tasks:

Preparatory Actions – No hold-up or legacy waste (inventory) was ever present in Building 34C. Other than standard facility shutdown work, such as utility disconnections and removal of salvageable equipment, no preparatory actions will be necessary.

Asbestos Removal – There are no asbestos containing materials present in Building 34C.

Surface Decontamination – No surface contamination was detected on the exterior of the system.

Above-Grade Dismantlement – The RTS has elevated levels of long live Radon progeny, Lead, Polonium, and Bismuth. However, the external exposure problems that existed during operations are gone. The short-lived gamma emitters have long since decayed away. This left the longer-lived radioisotopes. These isotopes are an internal hazard from the alphas and betas.

A contamination survey on the externals of equipment and piping to be removed in the RTS indicated no external contamination. However, samples taken from sample ports cut into the piping indicated as expected loose contamination.

Therefore, the RTS piping will be cut using a saw in glove bags. In areas where glove bags cannot be used, drapes with local ventilation will be employed. All piping will be sealed after

cutting. The Tanks of carbon will be disconnected from the piping and sealed on each end. The tanks will be shipped to the disposal facility (probably Envirocare) with the carbon in the vessels. The preferred methods for structural dismantlement are use of a front-end loader to remove the grade level concrete brick perimeter and manual dismantlement of the actual building structure. Dismantlement includes removal of all related airflow PVC pipe and the miscellaneous electrical conduit that runs in the area of Silos 1 and 2. PPE including respiratory protection will be used, as necessary during the demolition effort.

Equipment/systems removal activities will be performed in accordance with the work scope conditions from applicable requirements for Equipment/Systems Removal (Specification Section 15065) and actual building demolition work will be performed in accordance with the requirements for Structural Steel Dismantlement (Specification Section 01526) and Concrete/Masonry Removal (Specification Section 03315).





3.0 Debris/Waste Volume Estimates

Initial debris volume estimates for Building 34C are listed below. Volume estimates for Building 34C are based on manufacturer drawings and measurements taken during a field walk down. Detailed take-off estimates using architectural drawings are currently underway under the D&D planning process and will be entered into the project file to supersede these original estimates.

- Category A, B & D (Metals): 27 bulked yds³ (OSDF disposition if in accordance with WAC)
- Category E (Concrete): 20 bulked yds³ (OSDF disposition if in accordance with WAC)
- Category I2 (Miscellaneous Materials - PVC pipe): 20 bulked yds³ (OSDF disposition if in accordance with WAC)
- Category I4 (Miscellaneous Materials - Wood): 5 bulked yds³ (OSDF disposition if in accordance with WAC)
- Charcoal Absorbent in tanks (MEF in process): 12 bulked yds³ (offsite disposition if in accordance with WAC)

An evaluation of Category A debris (Structural Steel) was performed to determine whether alternative material disposition (e.g., recycling) may be a viable option. The Decision Methodology evaluation process for disposition alternatives, which was documented in Appendix B of the MSS Implementation Plan, was applied to the estimated 9.11 tons of structural steel (weight equivalent for 27 bulked yds³ from 34C) using the most current unit prices (documented in the Multi-Complex Implementation Plan, DOE 2001). The evaluation revealed that On-Site Disposal for the 9.11 tons would cost approximately \$728. The nearest alternative (Vendor Material Release Facility) had a cost of approximately \$7,470, which equates to a cost differential of 1,025 percent. Due to the large cost differential, the chosen disposition route for Category A debris is the OSDF.

The implementation schedule for field remediation of 34C is shown as follows:

Activity Description	Early Start	Early Finish	2001 - 2002								May
			Oct	Nov	Dec	Jan	Feb	Mar	Apr		
NOTICE TO PROCEED	31-Oct-01	-									
FIELD REMEDIATION COMPONENT 34C	31-Oct-01	31-Mar-02									
COMPLETION OF FIELD ACTIVITIES	-	31-Mar-02									
ISSUE TASK ORDER COMPLETION REPORT	-	30-Apr-02									

MISCELLANEOUS SMALL STRUCTURES D&D PROJECT TASK ORDER SCHEDULE
COMPONENT 34C

Figures 1 through 4 provide exterior and interior views of Building 34C.

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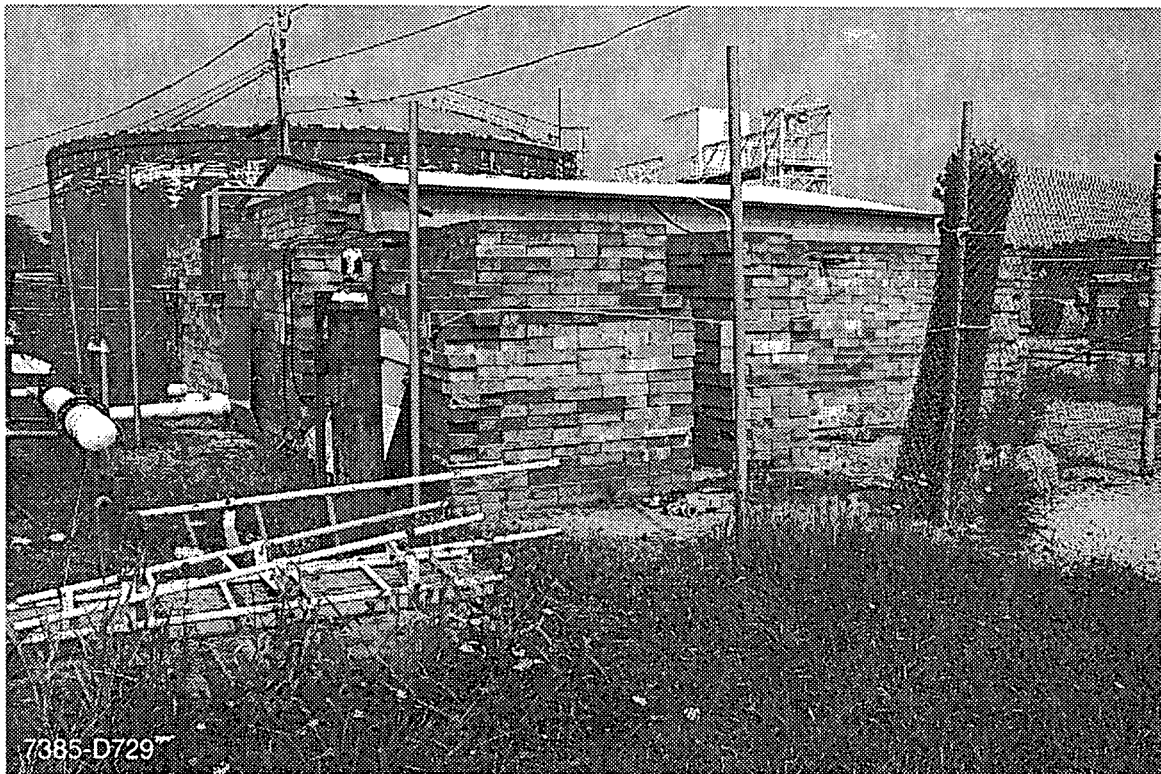


Figure 1 RTS Building - Building 34C Exterior

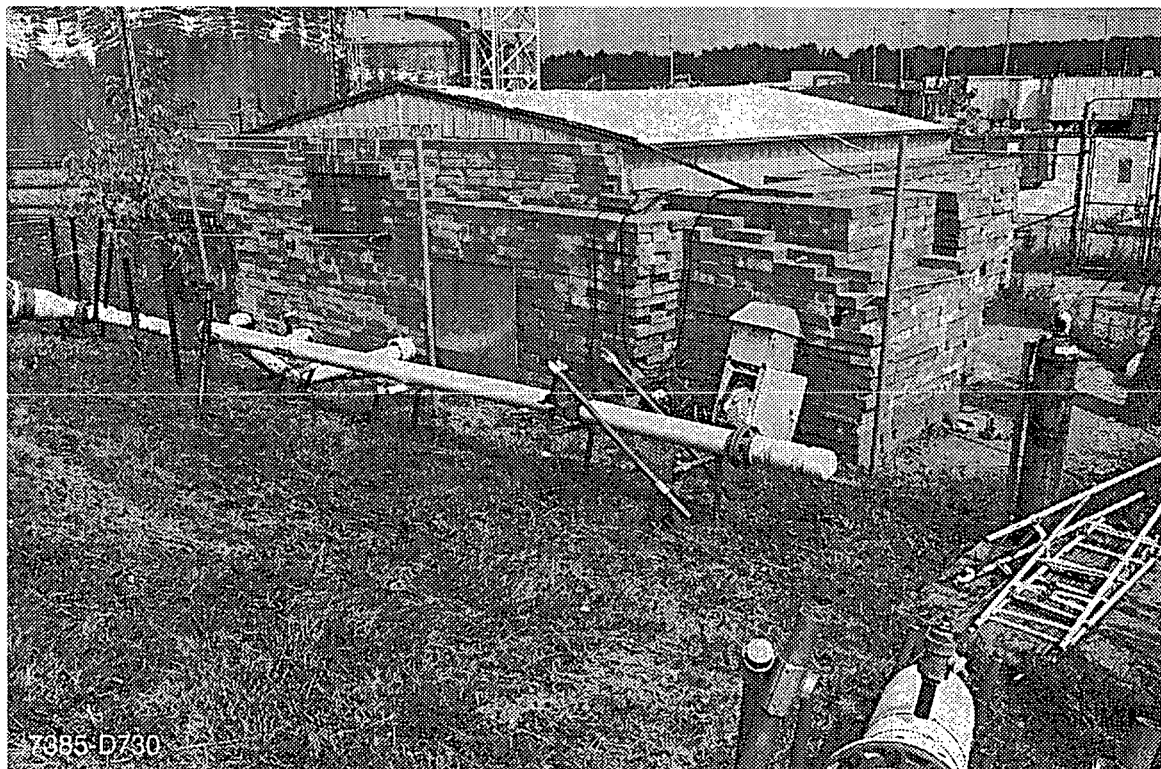


Figure 2 RTS Building - Building 34C Exterior

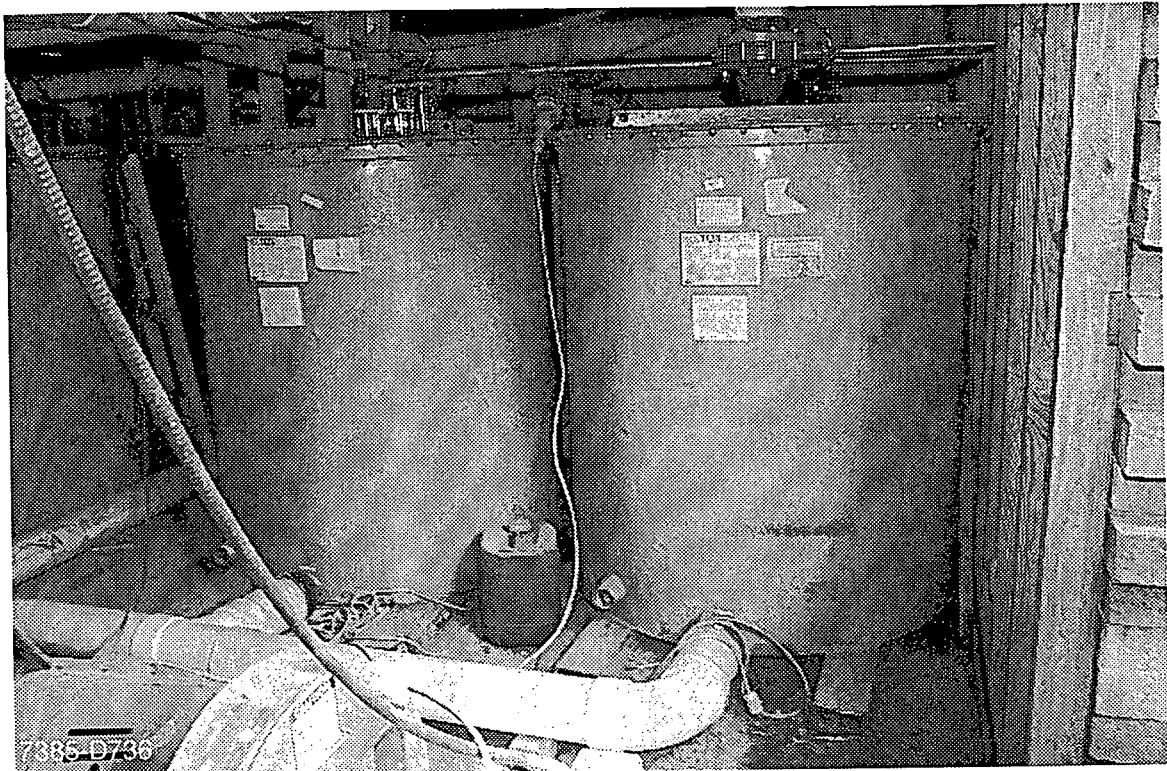


Figure 3 RTS Building - Building 34C Interior

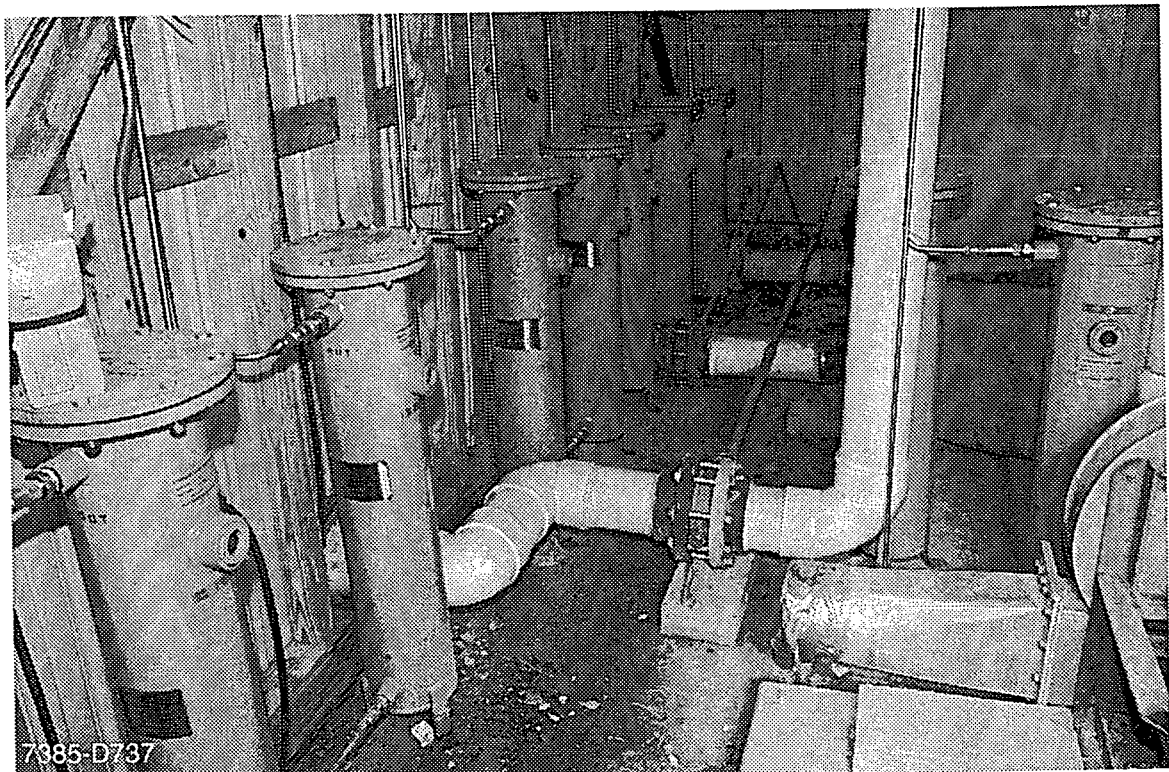


Figure 4 RTS Building - Building 34C Interior